

### REMARKS

Reexamination and further and favorable reconsideration of the subject application in light of the following remarks, pursuant to and consistent with 37 C.F.R. § 1.114, are respectfully requested.

#### **Status**

As is correctly reflected in the Office Action Summary mailed February 17, 2011, Claims 1-4 and 10 are pending. *Office Action mailed February 17, 2011, Office Action Summary, Item 4.* Claims 1-4 and 10 stand rejected. *Id. at Item 6.*

By the present amendment, the recitation “a case body of a valve drive section” has been replaced with “a housing of a gear box” in order to better describe the claimed invention. Support for the amendment may be found throughout the application as filed, e.g. at page 13, lines 33-34 and reference numeral 1 in the figures.

No new matter has been added.

#### **Rejections Under 35 U.S.C. § 103- Matsunaga and Felton**

Claims 1-4, 7, 10, 13, and 16 were rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 5,391,665 to Matsunaga *et al.* (“Matsunaga”) in view of U.S. Patent No. 3,595,523 to Felton. *See Office Action, Pages 4-12.* This rejection is respectfully traversed. Regarding claims 7, 13 and 16, please note that those have been previously deleted.

The Examiner has acknowledged that Matsunaga *et al.* does not teach a resin member for a valve wherein said resin member is a case body. Applicants have pointed out that Felton does

not describe a case body of a valve drive section as the term has been used in the present application. The Examiner has contended that Felton discloses a butterfly valve housing made of a plastic resin material and that the portion of the valve housing that encloses the shaft 6 of Felton corresponds to "a case body of a valve drive section." Applicants respectfully disagree. The language and usage of the application are clear in respect to what is meant by a case body of a valve drive section.

Nevertheless, by the present amendment, the recitations in the claims of "a case body of a valve drive section" have been replaced with "a housing of a gear box" in order to better describe the claimed invention. An exemplary case body of a valve drive section that is a housing of a gear box is illustrated for example by reference numeral 1 in the figures of the application. *See, e.g.*, page 13, lines 33-34 and Figure 1-3. This should not be confused with a butterfly valve body such as illustrated by reference numeral 8 in the figures of the application. *See, e.g.*, Figure 8.

Felton does not describe or illustrate a resin member for a valve which is a housing of a gear box. Felton discloses a butterfly valve body of plastic material. *See* Felton, at col. 1, lines 25-32. Felton describes their plastic butterfly valve as having a reinforcement blade, comprising a valve housing (1) and a blade (2), a shaft (6) which is molded as a part of blade (2), with polyvinyl chloride as a polymer. To the extent the Examiner may assert that Felton suggested the use of plastics generally in valve components, there is certainly no disclosure of the resin material recited in the present claims. *See* Felton at col. 2, lines 6-10. Polyvinyl chloride is completely different from "an epoxy acrylate resin (A)" of the present claims.

Moreover, Felton does not describe nor suggest the object of the present invention.

Felton does not describe any problems to be solved which are common to the problems purportedly solved by Matsunaga. There are no common problems to be solved or common technical features between the inventions of Matsunaga and Felton.

The invention of Matsunaga relates to "a process for producing a useful polymer having hydroxyl groups at both terminals capable of reacting with various kinds of functional groups, a composition containing the polymer and its use, and a polymer derived from the composition and its use." *See* Matsunaga at column 1, lines 6 to 11.

None of the examples presented by Matsunaga et al. are directed to a resin for use in valve components. There is no teaching at all in Matsunaga of which compositions might have properties appropriate for valve components or which would solve the problems previously associated with the prior art of casings for gear box components of a valve. Matsunaga only describes a polymer having hydroxyl groups at both sides as defined in claim 1 thereof and various uses for the polymer.

Matsunaga's teaching is broad and does not describe nor suggest specific plastic materials, particularly in relation to "an epoxy acrylate resin (A) having a hydroxyl value of 60 to 100" in combination with "a polyisocyanate compound (B) having 0.1 to 1.5 isocyanate groups per one hydroxyl group of the epoxy acrylate resin (A)", as defined in the present claims, and particularly not in relation to use for a gear box housing. Matsunaga does not teach or purport to solve any problems to be solved in common to Felton and/or the present invention.

Therefore, selection of "an epoxy acrylate resin (A) having a hydroxyl value of 60 to 100" in combination with "a polyisocyanate compound (B) having 0.1 to 1.5 isocyanate groups

per one hydroxyl group of the epoxy acrylate resin (A)" to form varieties of polymer and use of the polymer as a polymer for "a case body of a valve drive section" could not have been conceived of by a person with ordinary skill in the art based on Matsunaga and Felton.

To make out a proper rejection requires an explicit analysis articulating a reason for combining the particular elements and features recited in the claims. *See KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007) (citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329 (Fed Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”)). A naked assertion of obviousness cannot stand without some rational basis in the prior art to direct a person of ordinary skill in to make the claimed invention.

Mere experimentation with the myriad of plastics embraced by the disclosure of Matsunaga cannot be the basis of a rejection. “[A]n invention is not obvious to try where vague prior art does not guide an inventor toward a particular solution.” *Bayer Schering Pharma AG v. Barr Laboratories Inc.*, 91 USPQ2d 1569, 1573 (Fed. Cir. 2009).

Because there is no apparent common technical relationship between the inventions of Felton and Matsunaga, there is no rational reason that would cause one to combine these references. There are no common problems to be solved by the inventions of Felton and Matsunaga. There could not have been any motivation from either or both Felton and Matsunaga, and none has been identified anywhere in the prior art as a whole, that would lead a person of ordinary skill in the art to select resin combination recited in the claims for making a

resin member for a valve, wherein said resin member is a housing of a gear box. Therefore, the present inventions of the pending claims are patentable over Matsunaga and Felton.

### **CONCLUSION**

In the event that there are any questions relating to this Amendment and Reply Pursuant to 37 C.F.R. § 1.114, or to the application in general, it would be appreciated if the Examiner would contact the undersigned attorney by telephone at (703) 836-6620 so that prosecution of the application may be expedited.

The Patent Office is hereby authorized to charge any necessary fees, or credit any overpayment, to Deposit Account No. 02-4800.

Respectfully submitted,  
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Date: July 18, 2011

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